

REFERENCE 1 (bases 1 to 4288)
AUTHORS Shao, Y., Wagner, E., Wolf, H., and Graf, M.
TITLE The genome of the hiv-1 inter-subtype (c/b') and use thereof
JOURNAL Patent: WO 0136614-A 2 25-MAY-2001
Geneart GMBH Gesellschaft fuer angewandte Biotechnologie (DE) ;
Shao, Yiming (CN)
FEATURES
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Db 853 GACATCAAGCAGGCCCCCAAGAGCCCTTCAGGAGACIACGICGACAGCCTTCTCAAGACC 612			
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DEFINITION Synthetic construct: HIV-1-derived gag protein gene, complete cds.
ACCESSION AF287354
VERSION AF287354.1 GI:11066866
KEYWORDS
SOURCE Synthetic construct.
ORGANISM Synthetic construct.
ARTIFICIAL SEQUENCE.
REFERENCE 1 (bases 1 to 1548)
AUTHORS Fuller, M. and Anson, D.S.
TITLE Helper plasmids for production of HIV derived vectors
JOURNAL Unpublished
REFERENCE 2 (bases 1 to 1548)
AUTHORS Fuller, M. and Anson, D.S.
TITLE Direct Submission
JOURNAL Submitted (12-JUL-2000) Chemical Pathology, Women's and Children's
Hospital, 72 King William Road, North Adelaide, SA 5006, Australia
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source Location/Qualifiers
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Db 886 GACATCAAGGTCACAGGAGAGCTTACAGGACTACATGACACAGGTTCTACAGAGC 945
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LOCUS AF287352 4352 bp DNA linear SYN 01-NOV-2000
DEFINITION Synthetic construct: HIV-1 derived gag protein and pol protein
genes, complete cds.
ACCESSION AF287352
VERSION AF287352.1 GI:11066861
KEYWORDS
SOURCE Synthetic construct.
ORGANISM Synthetic construct.
ARTIFICIAL SEQUENCE.
REFERENCE 1 (bases 1 to 4352)
AUTHORS Fuller, M. and Anson, D.S.
TITLE Helper plasmids for production of HIV derived vectors
JOURNAL Unpublished
REFERENCE 2 (bases 1 to 4352)
AUTHORS Fuller, M. and Anson, D.S.
TITLE Direct Submission
JOURNAL Submitted (12-JUL-2000) Chemical Pathology, Women's and Children's
Hospital, 72 King William Road, North Adelaide, SA 5006, Australia
FEATURES
source Location/Qualifiers
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LOCUS
DEFINITION Sequence 3 from Patent WO0188141.
ACCESSION AX306429
VERSION AX306429.1 GI:17645653
KEYWORDS
SOURCE synthetic construct.
ORGANISM synthetic construct
artificial sequence.
REFERENCE 1 (sites)
AUTHORS Wagner,R., Graf,M., Deml,L. and Bieler,K.
TITLE Synthetic gapol genes and their uses
JOURNAL Patent: WO 0188141-A 3 22-NOV-2001;
Geneart GmbH (DE)
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source Location/Qualifiers
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RESULT 15
AX306428 4343 bp DNA linear PAT 11-DEC-2001
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DEFINITION Sequence 2 from Patent WO0188141.
ACCESSION AX306428
VERSION AX306428.1 GI:17645652
KEYWORDS
SOURCE synthetic construct.
ORGANISM synthetic construct
artificial sequence.
REFERENCE 1 (sites)
AUTHORS Wagner,R., Graf,M., Deml,L. and Bieler,K.
TITLE Synthetic gapol genes and their uses
JOURNAL Patent: WO 0188141-A 3 22-NOV-2001;
Geneart GmbH (DE)
FEATURES
source Location/Qualifiers
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/db_xref="taxon:32630"
/note="sequence with optimized codons"
BASE COUNT 1064 a 1341 c 1388 g 550 t
ORIGIN

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Best Local Similarity 86.7%; Pred. No. 0.0012;
Matches 52; Conservative 0; Mismatches 8; Indels 0; Gaps 0;
QY 1 qacatcaagagggcccaaggagcccttcaggactacgtggaccccttcttcaggacc 60
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DB 850 GATATCAGGACGCGCCGCAAGAGCCCTTCAGGGACTACGTCGATAGGTTCTTACAAAGACC 909

PR 31-DEC-1998; 98US-0114495.
PR 01-DEC-1999; 99US-0168471.
XX
PA (CHIR) CHIRON CORP.
XX
PI Barnett S, Zur Megede J, Srivastava I, Lian Y, Hartley K, Liu H;
PI Greer C, Selby M, Walker C;
XX
XX WPI; 2000-452400/39.
DR
XX
XX Expression cassettes encoding the human immunodeficiency virus (HIV)
PI Gag-containing polypeptide useful for vaccinating against HIV
PT Infections and acquired immunodeficiency syndrome (AIDS) -
XX
XX Claim 3; Fig 7; 391pp; English.
PS
XX The present sequence is the coding sequence of a HIV Gag expression
CC cassette, Gag.ModSF2. The Gag protein of HIV is needed for the assembly
CC of virus-like particles. In addition, the Gag protein is involved in
CC many stages of the HIV life cycle, including assembly, virion maturation,
CC after particle release and early post-entry steps in viral replication.
CC The expression cassette may be used for the recombinant expression of
CC HIV Gag-polypeptides which may then be used to vaccinate against HIV
CC infection and acquired immunodeficiency syndrome (AIDS).
XX
SQ Sequence 1515 BP; 329 A; 547 C; 480 G; 159 T; 0 other;

Query Match 89.3%; Score 53.6; DB 21; Length 1515;
Best Local Similarity 93.3%; Pred. No 6e-08;
Matches 56; Conservative 0; Mismatches 4; Indels 0; Gaps 0;

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RESULT 15
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XX
AC AAA70413;
XX
DT 28-NOV-2000 (first entry)
XX
XX HIV Gag-protease expression cassette coding sequence GagProt.ModS.
DE
XX HIV-1; AIDS; Gag-protease, vaccine, expression cassette; ss.
KW
XX Human immunodeficiency virus type 1.
OS
OS Synthetic.
XX
PN WO200039302-A2.
XX
PD 06-JUL-2000.
XX
PF 30-DEC-1999; 99WO-US31245.
XX
PR 31-DEC-1998; 98US-0114495.
PR 01-DEC-1999; 99US-0168471.
XX
XX (CHIR) CHIRON CORP.
XX
XX Barnett S, Zur Megede J, Srivastava I, Lian Y, Hartley K, Liu H;
PI Greer C, Selby M, Walker C;
XX
XX WPI; 2000-452400/39.
DR
XX
XX Expression cassettes encoding the human immunodeficiency virus (HIV)
PT Gag-containing polypeptide useful for vaccinating against HIV
PI Infections and acquired immunodeficiency syndrome (AIDS) -
XX
XX Claim 5; Fig 7; 391pp; English.
PS

XX The present sequence is the coding sequence of a HIV Gag-protease
CC expression cassette, GagProt.ModS. The Gag protein of HIV is needed for
CC the assembly of virus like particles. In addition, the Gag protein is
CC involved in many stages of the HIV life cycle, including assembly, virion
CC maturation after particle release and early post-entry steps in viral
CC replication. The expression cassette may be used for the recombinant
CC expression of HIV Gag polypeptides which may then be used to vaccinate
CC against HIV infection and acquired immunodeficiency syndrome (AIDS).
XX
SQ Sequence 1853 BP; 421 A; 624 C; 580 G; 228 T; 0 other;

Query Match 89.3%; Score 53.6; DB 21; Length 1853;
Best Local Similarity 93.3%; Pred. No 6.2e-08;
Matches 56; Conservative 0; Mismatches 4; Indels 0; Gaps 0;

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Job time: 8497 sec



Genome version 4.5
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2M nucleotide nucleotide search, using sw model

Run on: July 2, 2002, 19:19:44 : Search time 255.28 seconds
(without alignments)
344,562 Million cell updates/sec

File: US 09 475 704 1

Sequence: 1 equal comparison (4,000,000 comparisons) (4,000,000 comparisons)

Scoring table: HERRITY R9

Gap: 10,0 / Gap: 1.0

Searched: 13746297 seqs, 6748477542 residues

Total number of hits satisfying chosen parameters: 27472414

Minimum DB seq length: 0
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Post processing: Minimum Match 10%
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Listing first 45 summaries

Database: EST:*

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2: cm est ham: *
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16: cm qss_st: *

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

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1	28.4	47.7	491	9	AU031268, AU031269
2	28.4	47.7	500	10	BE517417, 947062, 12
3	28.2	47.0	585	9	AW147037, 797011, 07
4	28	46.7	168	10	BE5050418, FM1_5_4_H0
5	28	46.7	216	9	AA143927, 2ES100762
6	28	46.7	219	10	BE356040, 163_121_H
7	28	46.7	282	10	BE502828, 102000638
8	28	46.7	327	10	BF317794, 0V1_5_E19
9	28	46.7	336	9	A1586607, 486049010
10	28	46.7	347	9	AU097510, A3097510
11	28	46.7	350	10	B1305785, NL_1_113
12	28	46.7	355	9	AU029576, AU029576
13	28	46.7	363	13	299276, 299276, R13
14	28	46.7	364	10	114732, 05004107, 12
15	28	46.7	364	10	BE918440, 0V1_3_304
16	28	46.7	366	9	AU223236, AU223236
17	28	46.7	370	10	BE595775, P11_54_30

18	28	46.7	371	10	BE917843, 0V1_3_31
19	28	46.7	372	10	BE3462293, 947064, 03
20	28	46.7	376	10	BM522819, 155533, 3
21	28	46.7	381	9	AU198003, AU198003
22	28	46.7	386	10	BE1099426, 111_4_3_A
23	28	46.7	387	10	BE347940, 0V1_2_5_13
24	28	46.7	389	10	BE57016, 0V2_18_10
25	28	46.7	391	10	BE0048475, 0V1_14_A
26	28	46.7	397	10	BE3273239, 0V2_28_10
27	28	46.7	398	6	BE334434, 111_14_3
28	28	46.7	402	10	BE3240684, 0V1_3_7_A
29	28	46.7	405	10	BE3382619, MES111_2_7
30	28	46.7	407	10	BE57319, 0V2_25_10
31	28	46.7	408	10	BE3235180, 947062, 02
32	28	46.7	410	10	BE376652, BE376652
33	28	46.7	411	10	BE3415662, BE3415662
34	28	46.7	420	10	BE3416623, 947062, 09
35	28	46.7	431	10	BE3411913, 0V2_35_13
36	28	46.7	431	9	AU182770, AU182770
37	28	46.7	432	9	AU182657, AU182657
38	28	46.7	432	10	BE3778370, BE3778370
39	28	46.7	433	10	BE3418452, 0V1_4_A04
40	28	46.7	435	9	AU198074, AU198074
41	28	46.7	438	9	AU198170, AU198170
42	28	46.7	439	10	BE3419043, 947062, 03
43	28	46.7	455	10	BE550542, 947062, 03
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45	28	46.7	463	10	BE341753, MES129, A

ALIGNMENTS

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LOCUS	AU031268	Rice cDNA from immature leaf including apical meristem			
DEFINITION	Oryza sativa cDNA clone BE1244-22, mRNA sequence.				
ACCESSION	AU031268				
VERSION	AU031268.1	GI: 2767138			
KEYWORDS	EST				
SOURCE	Oryza sativa				
ORGANISM	Oryza sativa				
REFERENCE	1 (bases 1 to 491)				
AUTHORS	Sasaki, I., and Yamamoto, K.				
TITLE	Rice cDNA from immature leaf including apical meristem				
JOURNAL	Unpublished (1997)				
COMMENT	Contact: Takuji Sasaki National Institute of Agricultural Resources, Rice Genome Research Program, Kanagawa 21-2, Tsukuba, Ibaraki 305-8602, Japan Tel: 81-298-38-7441 Fax: 81-298-38-7468 Email: tsukasa@affrc.affrc.go.jp URL: http://affrc.affrc.go.jp/ PROJECT: RGP				
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	/strain "Nipponbare"				
	/date "Oct 1998"				
	/clone "BE1244-22"				
	/cotton lib "Rice cDNA from immature leaf including apical meristem"				
	/key words "immature"				
	/note "Organic leaf; immature leaf including apical meristem (under long day condition)"				
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ORIGIN					






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RESULT 2
AX188560
LOCUS AX188560 1914 bp DNA linear PAT 08-AUG-2001
DEFINITION Sequence 29 from Patent WO0147955.
ACCESSION AX188560
VERSION AX188560.1 GI:15142200
KEYWORDS
SOURCE synthetic construct.
ORGANISM synthetic construct.
artificial sequence.
REFERENCE 1 (bases 1 to 1914)
AUTHORS Hanke,T.M. and Memichael,A.J.
TITLE Improvements in or relating to immune responses to hiv
JOURNAL Patent: WO 0147955-A 29 05 JUL 2001;
MEDICAL RESEARCH COUNCIL (GB) ; International Aids Vaccine
Initiative (US) ; University of Nairobi (KE)
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Best Local Similarity 100.0%; Pred. No. 7.3e-07;
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RESULT 3
AX188562
LOCUS AX188562 2493 bp DNA linear PAT 08-AUG-2001
DEFINITION Sequence 31 from Patent WO0147955.
ACCESSION AX188562
VERSION AX188562.1 GI:15142201
KEYWORDS
SOURCE synthetic construct.
ORGANISM synthetic construct.
artificial sequence.
REFERENCE 1 (bases 1 to 2493)
AUTHORS Hanke,T.M. and Memichael,A.J.
TITLE Improvements in or relating to immune responses to hiv
JOURNAL Patent: WO 0147955-A 31 05 JUL 2001;
MEDICAL RESEARCH COUNCIL (GB) ; International Aids Vaccine
Initiative (US) ; University of Nairobi (KE)
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RESULT 4
AX188564
LOCUS AX188564 1450 bp DNA linear PAT 08-AUG-2001
DEFINITION Sequence 22 from Patent WO0147955.
ACCESSION AX188564
VERSION AX188564.1 GI:15142202
KEYWORDS
SOURCE synthetic construct.
ORGANISM synthetic construct.
artificial sequence.
REFERENCE 1 (bases 1 to 1450)
AUTHORS Hanke,T.M. and Memichael,A.J.
TITLE Improvements in or relating to immune responses to hiv
JOURNAL Patent: WO 0147955-A 33 05 JUL 2001;
MEDICAL RESEARCH COUNCIL (GB) ; International Aids Vaccine
Initiative (US) ; University of Nairobi (KE)
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    /note="Chimeric polynucleotide"

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RESULT 5
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LOCUS AF201927 1509 bp DNA linear SVN 16-MAR-2000
DEFINITION Synthetic construct gag protein gene, complete cds.
ACCESSION AF201927
VERSION AF201927.1 GI:7249702
KEYWORDS
SOURCE synthetic construct.
ORGANISM synthetic construct.
artificial sequence.
REFERENCE 1 (bases 1 to 1509)
AUTHORS zur Meulen,J., Chen,M.C., Doe,B., Schaefer,M., Greer,C.E.,
Selby,M., Otten,G.R. and Barnett,S.W.
TITLE Increased expression and immunogenicity of sequence-modified human
immunodeficiency virus type 1 gag gene
JOURNAL J. Virol. 74 (6), 2628-2635 (2000)
MEDLINE 20148954
PubMed 10684277
REFERENCE 2 (bases 1 to 1509)
AUTHORS zur Meulen,J. and Barnett,S.W.
TITLE Direct Submission
JOURNAL Submitted (04-NOV-1999) Vaccines, Chiron Corporation, 4560 Horton,
Emeryville, CA 94608, USA
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Total time: 802.5 sec

PT especially human against HIV
XX
PS Claim 1: Page 92; 113pp; English.
XX
CC Expression cassettes comprising a polynucleotide encoding antigenic
CC type C human immunodeficiency virus (HIV) Gag or Env polypeptides are
CC useful in DNA immunization, generation of packaging cell lines and
CC production of Gag and/or Env containing proteins. Synthetic Env and Gag
CC expression cassettes exhibit increased potency for induction of
CC cytotoxic T-lymphocyte (CTL) responses by DNA immunization. Gag of HIV-1
CC self-assemble into non-infectious virus-like particles which are used as
CC a matrix for the proper presentation of an antigen entrapped or
CC associated to the immune system of the host.
XX
SQ Sequence 60 BP; 12 A; 24 C; 15 G; 9 T; 0 other;

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Best Local Similarity 100.0%; Prod No. 20-09;
Matches 60; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

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RESULT 2
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XX
AC AAA51610;
XX
DI 31-OCT-2000 (first entry)
XX
DE HIV synthetic Gag polynucleotide.
XX
KW Gag; expression cassette, antigenic, type C, HIV, Env, synthetic;
KW DNA immunization; packaging cell line; antigen presentation; ss.
XX
OS Human immunodeficiency virus type C strain AF110967
OS Synthetic.
XX
PN W6200039304-A2.
XX
PD 06-JUL-2000.
XX
PF 30-DEC-1999; 99W0-US31273.
XX
PR 31 DEC 1998; 98US-0114495.
PR 01-SEP-1999; 99US-0152195.
XX
PA (CHIR) CHIRON CORP.
XX
PI Barnett S, Zur Mequede J;
XX
DR WPI: 2000-452401/39.
XX
PT Polynucleotide encoding antigenic type C HIV Gag polypeptide or a HIV
PT Env polypeptide and the polypeptide useful for immunizing a mammal
PT especially human against HIV
XX
PS Disclosure: Page 104; 113pp; English.
XX
CC Expression cassettes comprising a polynucleotide encoding antigenic
CC type C human immunodeficiency virus (HIV) Gag or Env polypeptides are
CC useful in DNA immunization, generation of packaging cell lines and
CC production of Gag and/or Env containing proteins. Synthetic Env and Gag
CC expression cassettes exhibit increased potency for induction of
CC cytotoxic T-lymphocyte (CTL) responses by DNA immunization. Gag of HIV-1
CC self-assemble into non-infectious virus-like particles which are used as
CC a matrix for the proper presentation of an antigen entrapped or
CC associated to the immune system of the host.
XX
SQ Claim 2: Page 93; 113pp; English.

Expression cassettes comprising a polynucleotide encoding antigenic
type C human immunodeficiency virus (HIV) Gag or Env polypeptides are
useful in DNA immunization, generation of packaging cell lines and
production of Gag and/or Env containing proteins. Synthetic Env and Gag
expression cassettes exhibit increased potency for induction of
cytotoxic T-lymphocyte (CTL) responses by DNA immunization. Gag of HIV-1
self-assemble into non-infectious virus-like particles which are used as
a matrix for the proper presentation of an antigen entrapped or
associated to the immune system of the host.
XX

SQ Sequence 1509 BP; 320 A; 556 C; 472 G; 161 T; 0 other;

Query Match 100.0%; Score 60; DB 21; Length 1509;
Best Local Similarity 100.0%; Prod No. 2-4e-09;
Matches 60; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

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XX
AC AAA51626;
XX
DI 41-OCT-2000 (first entry)
XX
DE HIV codon optimized synthetic Gag polynucleotide.
XX
KW Gag; expression cassette; antigenic; type C; HIV; Env; synthetic;
KW DNA immunization; packaging cell line; antigen presentation; ss.
XX
OS Human immunodeficiency virus type C strain AF110967.
OS Synthetic.
XX
PN W6200039401-A2.
XX
PD 06 JUL 2000.
XX
PF 30-DEC-1999; 99W0-US31273.
XX
PR 31 DEC-1998; 98US-0114495.
PR 01-SEP-1999; 99US-0152195.
XX
PA (CHIR) CHIRON CORP.
XX
PI Barnett S, Zur Mequede J;
XX
DR WPI: 2000-452401/39.
XX
PT Polynucleotide encoding antigenic type C HIV Gag polypeptide or a HIV
PT Env polypeptide and the polypeptide useful for immunizing a mammal
PT especially human against HIV
XX
PS Disclosure: Page 104; 113pp; English.
XX
CC Expression cassettes comprising a polynucleotide encoding antigenic
CC type C human immunodeficiency virus (HIV) Gag or Env polypeptides are
CC useful in DNA immunization, generation of packaging cell lines and
CC production of Gag and/or Env containing proteins. Synthetic Env and Gag
CC expression cassettes exhibit increased potency for induction of
CC cytotoxic T lymphocyte (CTL) responses by DNA immunization. Gag of HIV-1
CC self-assemble into non-infectious virus-like particles which are used as
CC a matrix for the proper presentation of an antigen entrapped or
CC associated to the immune system of the host.
XX
SQ Sequence 1509 BP; 321 A; 559 C; 471 G; 158 T; 0 other;

Query Match 100.0%; Score 60; DB 21; Length 1509;
Best Local Similarity 100.0%; Prod No. 2-4e-09;
Matches 60; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 gacatccacagcccaagagacccctccgcgaactacgtgaacgctttcttcaaac 60
|||||
Db 841 gacatccacagcccaagagacccctccgcgaactacgtgaacgctttcttcaaac 900

RESULT 4
AAA09487

PF Expression cassettes encoding the human immunodeficiency virus (HIV)
PI Gag-containing polypeptide useful for vaccinating against HIV
PT Infections and acquired immunodeficiency syndrome (AIDS) -
XX
PS Claim 5; Fig 70; 39lpp; English.
XX
CC The present sequence is the coding sequence of a HIV Gag-protease
CC expression cassette, GagProtMod.SF2(GP2). The Gag protein of HIV is
CC needed for the assembly of virus like particles. In addition, the Gag
CC protein is involved in many stages of the HIV life cycle, including
CC assembly, virion maturation after particle release and early post-entry
CC steps in viral replication. The expression cassette may be used for the
CC recombinant expression of HIV Gag-polypeptides which may then be used to
CC vaccinate against HIV infection and acquired immunodeficiency syndrome
CC (AIDS).
XX
SQ Sequence 1865 BP; 460 A; 583 C; 569 G; 253 T; 0 other;

Query Match 97.3%; Score 58.4; DB 21; Length 1865;
Best Local Similarity 98.3%; Pred. No. 7.6e-09;
Matches 59; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

QY 1 gacatccacgaagcccaaggaagcccttcggaactacgtgaacgcttcttcgaagac 60
|||||
DB 868 gacatccgcaagcccaaggaagcccttcggaactacgtgaacgcttcttcgaagac 927

RESULT 15
AAA70415
ID AAA70415 standard; DNA; 2031 BP.
XX
AC AAA70415;
XX
DT 28-NOV-2000 (first entry)
XX
DE Synthetic HIV Gag/HCV core fusion coding sequence.
XX
KW HIV-1; AIDS; Gag; vaccine; expression cassette; ss.
XX
OS Chimeric - Human immunodeficiency virus type 1.
OS Chimeric - Hepatitis C virus.
XX
PN WO200039302-A2.
XX
PD 06-JUL-2000.
XX
PF 30-DEC-1999; 99WO-US31245.
XX
PR 31-DEC-1998; 98US-0114495.
PR 01-DEC-1999; 99US-0168471.
XX
PA (CHIR) CHIRON CORP.
XX
PI Barnett S, Zar Mcquade J, Srivastava I, Lian Y, Hartog K, Liu H;
PI Greer C, Selby M, Walker C;
XX
DR WPI, 2000 452400/39.
XX
PI Expression cassettes encoding the human immunodeficiency virus (HIV)
PI Gag-containing polypeptide useful for vaccinating against HIV
PI Infections and acquired immunodeficiency syndrome (AIDS) -
XX
PS Example 1; Pages 341-342; 39lpp; English.
XX
CC The present sequence is a HIV Gag/Hepatitis C virus (HCV) core fusion
CC coding sequence. The Gag protein of HIV is needed for the assembly of
CC virus like particles. In addition, the Gag protein is involved in many
CC stages of the HIV life cycle, including assembly, virion maturation after
CC particle release and early post-entry steps in viral replication. The
CC present invention relates to synthetic HIV Gag expression cassettes. The
CC present sequence was cloned and used to generate the expression cassettes
CC of the present invention. The expression cassettes may be used for the

CC recombinant expression of HIV Gag-polypeptides which may then be used to
CC vaccinate against HIV infection and acquired immunodeficiency syndrome
CC (AIDS).
XX
SQ Sequence 2031 BP; 421 A; 707 C; 646 G; 257 T; 0 other;

Query Match 97.3%; Score 58.4; DB 21; Length 2031;
Best Local Similarity 98.3%; Pred. No. 7.6e-09;
Matches 59; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

QY 1 gacatccacgaagcccaaggaagcccttcggaactacgtgaacgcttcttcgaagac 60
|||||
DB 862 gacatccgcaaggaagcccaaggaagcccttcggaactacgtgaacgcttcttcgaagac 921

Search completed: July 2, 2002, 2:09:46
Job time: 8498 sec

